



# CONSTRUCTION EQUIPMENT

## EXCAVATOR FC241C 110075 - DIESEL ENGINE



**Sample No:** VCE099908  
**Oil Type:** VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3  
**Job No:**



### SAMPLE INFORMATION

Sample Number	<b>VCE099908</b>	VCE098275	---	---
Sample Date	<b>23 Dec 2019</b>	05 Jun 2015	---	---
Machine Hours	<b>12155</b>	4550	---	---
Oil Hours	<b>500</b>	0	---	---
Oil Changed	<b>Changed</b>	N/A	---	---
Sample Status	<b>ABNORMAL</b>	NORMAL	---	---

**STRONGCO EQUIPMENT INC. - MOUNT PEARL**  
 54 GLENCO DRIVE  
 MOUNT PEARL, NL  
 CA A1N 4S9  
 Contact: Jeff Hillier  
 jhillier@strongco.com  
 T: (709)747-4026  
 F: (709)747-4059



### OIL CONDITION

Visc @ 40°C	cSt	---	151	---	---
Visc @ 100°C	cSt	<b>▲ 9.8</b>	18.0	---	---
Viscosity Index (VI)	Scale	---	132	---	---
Oxidation (PA)	%	<b>37</b>	114	---	---

### Diagnosis

Resample at the next service interval to monitor. All component wear rates are normal. Tests indicate that there is no fuel present in the oil. There is no indication of any contamination in the oil. Viscosity of sample indicates oil is within SAE 30 range, advise investigate. The condition of the oil is acceptable for the time in service.



### CONTAMINATION

Soot %	%	<b>■ 0.4</b>	■ 0.3	---	---
Nitration (PA)	%	<b>59</b>	■ 106	---	---
Sulfation (PA)	%	<b>54</b>	■ 83	---	---
Glycol	%	<b>NEG</b>	■ 0.0	---	---
Fuel	%	<b>■ 0.0</b>	<1.0	---	---
Silicon	ppm	<b>■ 3</b>	■ 5	---	---
Sodium	ppm	<b>■ 0</b>	■ 3	---	---
Potassium	ppm	<b>■ 1</b>	■ 6	---	---



### WEAR METALS

Iron	ppm	<b>■ 20</b>	■ 29	---	---
Copper	ppm	<b>■ 3</b>	■ 2	---	---
Lead	ppm	<b>■ &lt;1</b>	■ 6	---	---
Tin	ppm	<b>■ &lt;1</b>	■ 2	---	---
Aluminum	ppm	<b>■ 1</b>	■ 3	---	---
Chromium	ppm	<b>■ &lt;1</b>	■ 1	---	---
Molybdenum	ppm	<b>■ 3</b>	■ 24	---	---
Nickel	ppm	<b>■ &lt;1</b>	■ <1	---	---
Titanium	ppm	<b>■ &lt;1</b>	■ <1	---	---
Silver	ppm	<b>■ 0</b>	■ 0	---	---
Manganese	ppm	<b>■ &lt;1</b>	<1	---	---
Vanadium	ppm	<b>0</b>	0	---	---



### ADDITIVES

Calcium	ppm	<b>■ 1284</b>	■ 3042	---	---
Magnesium	ppm	<b>27</b>	■ 184	---	---
Zinc	ppm	<b>■ 760</b>	1632	---	---
Phosphorus	ppm	<b>■ 658</b>	■ 1420	---	---
Barium	ppm	<b>■ &lt;1</b>	■ <1	---	---
Boron	ppm	<b>■ 24</b>	■ 53	---	---

**Depot:** STRMOU  
**Unique No:** 4990495  
**Signed:** Kevin Marson  
**Report Date:** 14 Jan 2020

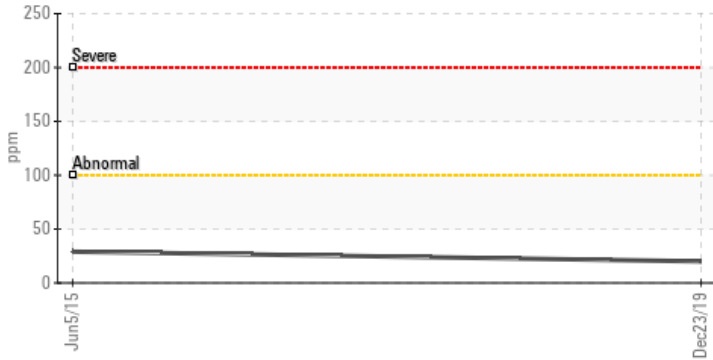


# CONSTRUCTION EQUIPMENT

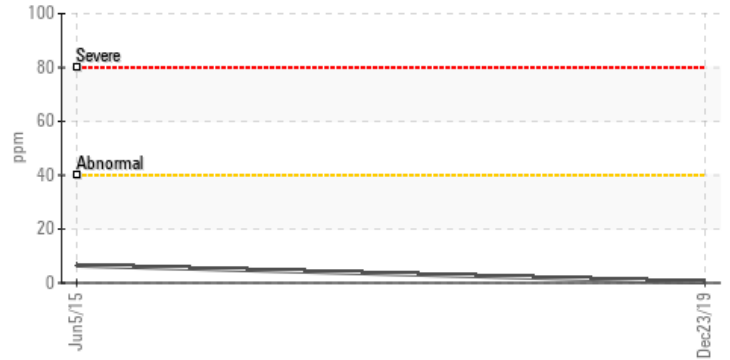


## GRAPHS

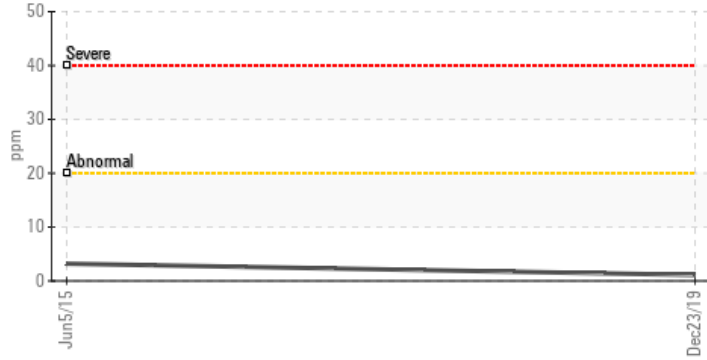
### Iron (ppm)



### Lead (ppm)



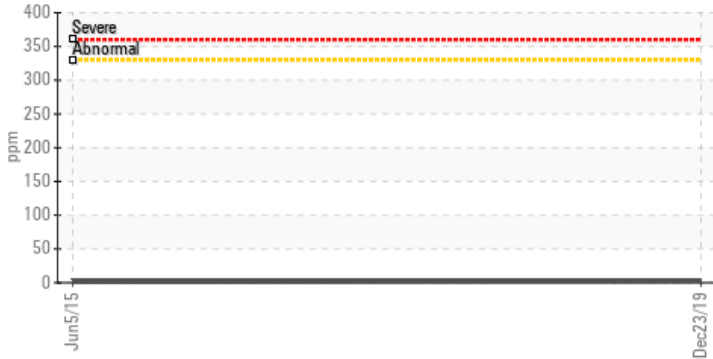
### Aluminum (ppm)



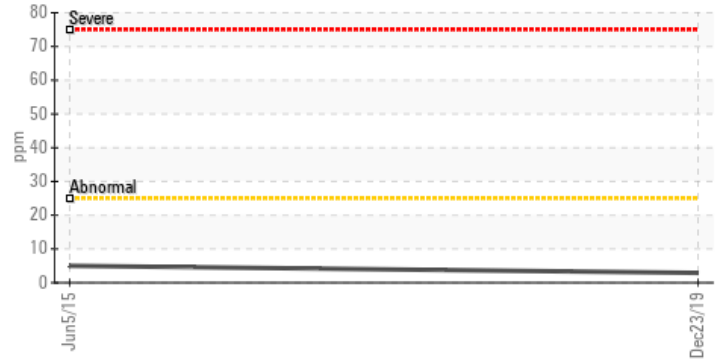
### Chromium (ppm)



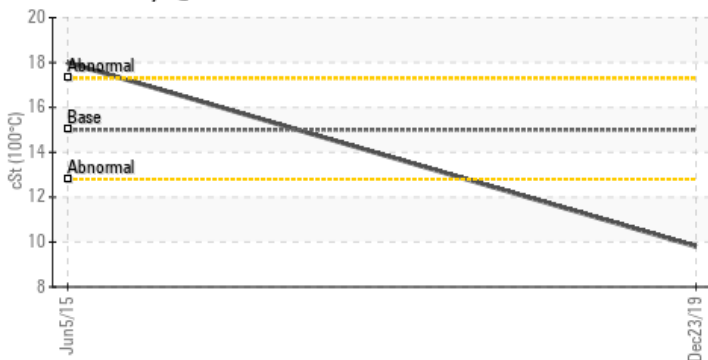
### Copper (ppm)



### Silicon (ppm)



### ▲ Viscosity @ 100°C



### Soot %

